STANDARD Pump, Inc.

Operating Instructions and Parts Manual
Industrial Pump Models: SP-PP, SP-PHT, SP-CPVC, SP-PVDF, SP-SS, & SP-700SR & SP-700DD

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Standard Pump

Industrial Pump Models: SP-PP, SP-PHT, SP-CPVC, SP-PVDF & SP-SS

Description

Standard's Drum Pumps are designed to transfer a variety of materials from 55 gallon drums and tanks. Standard Pump offers several different pumps, each designed for specific applications. Before operating, please confirm that the pump's materials of construction are suitable for the application.

Unpacking

Cartons should be handled with care to avoid damage from dropping, etc. After unpacking, inspect carefully for any damage that may have occurred during transit. Check for loose, damaged or missing parts.

General Safety Information

The responsibility for safe assembly, installation, and operation ultimately rests with the operator. Read and understand ALL safety precautions and operating instructions before operation. Careless pump operation can result in serious injury.

1. Before operating the pump, read and understand these operating instructions.
2. The operator should wear suitable protective clothing including the following: face mask, safety shield or goggles, gloves, apron, and safety shoes.
3. Before operating, verify the materials being pumped are compatible with the pump's "wetted components."
4. All Federal, State, and local safety codes should be followed.
5. Verify that the motor voltage corresponds to proper electrical supply.
6. Before plugging motor into power supply, make sure the motor switch is in the OFF position.
7. Before operation, confirm all pump connections are properly tightened.
8. First pump clean water in order to familiarize yourself with the pump's operation, flow rate, discharge pressure and motor speed.
9. Before starting the pump, confirm the discharge hose is securely fastened to the receiving vessel in order to prevent splashing.
10. Never leave pump unattended during operation.
11. Do not submerge the motor in any liquid.
12. When finished using the pump, flush the pump by pumping water or an appropriate cleaning solution. Do not use flammable or combustible cleaning solutions.
13. Never carry the motor by the power cord.
14. Never store pump in container. Always rinse pump thoroughly and hang on wall bracket.

⚠ WARNING ***When pumping flammable or combustible products or operating in a hazardous duty environment, the SP-SS Series Pump must be used in conjunction with an explosion proof motor. Please contact the factory or an authorized distributor with any questions regarding this matter.***

Model	Voltage	Amps	Watts	HP	Phase	Enclosure	Variable Speed	Explosion Proof	Air Consumption	Recommended Line Size In (mm)
SP-ODP Series	115-230V	5-8.5	550	0.75	1	ODP	N	N	N/A	N/A
SP-280P Series	115-230V	5-8.5	825	1	1	ODP (IP44)	Y	N	N/A	N/A
SP-ENC Series	115-230V	5-8.5	825	1	1	TEFC (IP54)	Y	N	N/A	N/A
SP-400-2	230V	5	550	0.75	1	EXP (IP54)	N	Y	N/A	N/A
SP-A2 Series	N/A	N/A	560	0.75	N/A	N/A	Y	Y	28 CFM (13.2 L/sec) @ 90 PSI (6,2 Bar)	.25" (6,3) or greater
SP-A1	N/A	N/A	370	0.5	N/A	N/A	Y	Y	22 CFM (10.4 L/sec) @ 90 PSI (6,2 Bar)	.125" (3,2) or greater
SP-500	190/380-230/460V	2-4.2	0,56 KW	0.75	3	TEFC (IP54)	N	N	N/A	N/A
SP-510	190/380-230/460V	2.1-4.6	0,75 KW	1	3	TEFC (IP54)	N	N	N/A	N/A
SP-520	190/380-230/460V	2.9-6.4	1,1 KW	1.5	3	TEFC (IP54)	N	N	N/A	N/A
SP-A4	N/A	N/A	1,5 KW	2	N/A	N/A	Y	Y	80 CFM (37 L/sec) @ 100 PSI (7 Bar)	.25" (6,3) or greater
SP-A6	N/A	N/A	3,0 KW	4	N/A	N/A	Y	Y	130 CFM (65 L/sec) @ 100 PSI (7 Bar)	.5" (12,7) or greater
SP-A8	N/A	N/A	3,7 KW	5	N/A	N/A	Y	Y	170 CFM (80 L/sec) @ 100 PSI (7 Bar)	.5" (12,7) or greater

⚠ ***The speed control switch should not be used as the main ON/OFF switch. Using the speed control switch in this manner causes excessive wear to the potentiometer and may result in premature failure. The use of the speed control switch does not cut power to the motor and inadvertent activation could result in injury or death if the motor is activated when not properly attended and secured. (Only applies to SP-280P and SP-ENC Series)***

Use Of Air Motors In Hazardous Atmospheres

At the present time, there are no known standards governing the operation of air motors in hazardous atmospheres. However, there are several points regarding the safety of air motors.

First of all, an air motor is not a source of electric sparks. However, it is possible that an article which is not part of the air motor (e.g., wrenches, hammers, etc.) could create a spark by sharply impacting a cast iron or aluminum case or the steel shaft of the air motor. (Note that electric motor enclosures for both class I and II hazardous locations can be made of "...iron, steel, copper, bronze, or aluminum..." (UL 674, Electric Motors and Generators – Hazardous Locations, June 23, 1989; paragraph 4.2, page 6). Second, an air motor housing is not designed to contain an internal explosion as is an explosion-proof electric motor. The only possible internal source of ignition in an air motor is a contact between the station housing components and the rotating elements that might create a spark. The likelihood of this occurring is reduced by the fact that the contact must be made at precisely the same time as a flammable or explosive gas is introduced into the air motor in a sufficient quantity to achieve a flammable or explosive mixture while overcoming the positive pressure of the driving gas. In other words, although highly improbable, an internal explosion in an air motor is possible.

Finally, an air motor is designed to be operated by compressed air, the expansion of which in normal operation creates a cooling effect. As a result, the temperature of the air motor will not exceed the height of the temperatures of the surrounding atmosphere or the air delivered to the inlet.

We do not guarantee the safety of every application, but to ensure the safe operation of an air motor in your application, always follow the product direction and consult with a qualified engineer.
(Source: Gast Manufacturing, Air Motors Handbook, page 2)

NOTE: This statement is only applicable in North America.

CENTRIFUGAL DRUM PUMPS

Model	Material Of Construction	Maximum Liquid Temperature	Wetted Materials	Flow Rate	Discharge Pressure
SP-CPVC	CPVC	190 F	CPVC, Carbon, Hastelloy C	32 gpm	16 psi
SP-CPVC-HH	CPVC	190 F	CPVC, Carbon, Hastelloy C	16 gpm	32 psi
SP-PP	Polypropylene	130 F	PP, Carbon, Hastelloy C	32 gpm	16 psi
SP-PP-HH	Polypropylene	130 F	PP, Carbon, Hastelloy C	16 gpm	32 psi
SP-PHT	Polypropylene	175 F	PP, Carbon, Hastelloy C	32 gpm	16 psi
SP-PHT-HH	Polypropylene	175 F	PP, Carbon, Hastelloy C	16 gpm	32 psi
SP-PVDF	PVDF (Kynar)	175 F	PVDF, Carbon, Hastelloy C	32 gpm	16 psi
SP-PVDF-HH	PVDF (Kynar)	175 F	PVDF, Carbon, Hastelloy C	16 gpm	32 psi
SP-SS	SS316L	175 F	SS316, Carbon, Teflon	32 gpm	16 psi
SP-SS-HH	SS316L	175 F	SS316, Carbon, Teflon	16 gpm	32 psi

PUMP PACKAGES

Model	HP	Voltage	Phase	Meter	Wetted Components	Immersion Length	Hose Length	Nozzle Material
9400	1	115V	1	No	Polypropylene, Carbon, Hastelloy C, PVC, Viton	39" (1000 mm)	6 ft. (1.83 meters)	Polypropylene
9401	1	230V	1	No	Polypropylene, Carbon, Hastelloy C, PVC, Viton	39" (1000 mm)	6 ft. (1.83 meters)	Polypropylene
9402	1	115V	1	No	Polypropylene, Carbon, Hastelloy C, PVC, Viton	47" (1200 mm)	6 ft. (1.83 meters)	Polypropylene
9403	1	230V	1	No	Polypropylene, Carbon, Hastelloy C, PVC, Viton	47" (1200 mm)	6 ft. (1.83 meters)	Polypropylene
9410	1	115V	1	No	SS316, Teflon, Carbon, Aluminum, PVC, Buna	39" (1000 mm)	6 ft. (1.83 meters)	Aluminum
9411	1	230V	1	No	SS316, Teflon, Carbon, Aluminum, PVC, Buna	39" (1000 mm)	6 ft. (1.83 meters)	Aluminum
9412	1	115V	1	No	SS316, Teflon, Carbon, Aluminum, PVC, Buna	47" (1200 mm)	6 ft. (1.83 meters)	Aluminum
9413	1	230V	1	No	SS316, Teflon, Carbon, Aluminum, PVC, Buna	47" (1200 mm)	6 ft. (1.83 meters)	Aluminum
9420	1	115V	1	No	PVDF, Carbon, Hastelloy C, Alphasyn, EPDM	39" (1000 mm)	6 ft. (1.83 meters)	PVDF
9421	1	230V	1	No	PVDF, Carbon, Hastelloy C, Alphasyn, EPDM	39" (1000 mm)	6 ft. (1.83 meters)	PVDF
9422	1	115V	1	No	PVDF, Carbon, Hastelloy C, Alphasyn, EPDM	47" (1200 mm)	6 ft. (1.83 meters)	PVDF
9423	1	230V	1	No	PVDF, Carbon, Hastelloy C, Alphasyn, EPDM	47" (1200 mm)	6 ft. (1.83 meters)	PVDF
9430	1	115V	1	No	CPVC, Polypropylene, Carbon, Hastelloy C, PVC, Viton	39" (1000 mm)	6 ft. (1.83 meters)	Polypropylene
9431	1	230V	1	No	CPVC, Polypropylene, Carbon Hastelloy C, PVC, Viton	39" (1000 mm)	6 ft. (1.83 meters)	Polypropylene
9432	1	115V	1	No	CPVC, Polypropylene, Carbon, Hastelloy C, PVC, Viton	47" (1200 mm)	6 ft. (1.83 meters)	Polypropylene
9433	1	230V	1	No	CPVC, Polypropylene, Carbon Hastelloy C, PVC, Viton	47" (1200 mm)	6 ft. (1.83 meters)	Polypropylene
9500	1	115V	1	Yes	Polypropylene, Carbon, Hastelloy C, PVC, Viton, Ceramic, PVDF	39" (1000 mm)	6 ft. (1.83 meters)	Polypropylene
9501	1	230V	1	Yes	Polypropylene, Carbon, Hastelloy C, PVC, Viton, Ceramic, PVDF	39" (1000 mm)	6 ft. (1.83 meters)	Polypropylene
9502	1	115V	1	Yes	Polypropylene, Carbon, Hastelloy C, PVC, Viton, Ceramic, PVDF	47" (1200 mm)	6 ft. (1.83 meters)	Polypropylene
9503	1	230V	1	Yes	Polypropylene, Carbon, Hastelloy C, PVC, Viton, Ceramic, PVDF	47" (1200 mm)	6 ft. (1.83 meters)	Polypropylene
9510	1	115V	1	Yes	PVDF, Carbon, Hastelloy C, Alphasyn EPDM, Ceramic	39" (1000 mm)	6 ft. (1.83 meters)	PVDF
9511	1	230V	1	Yes	PVDF, Carbon, Hastelloy C, Alphasyn EPDM, Ceramic	39" (1000 mm)	6 ft. (1.83 meters)	PVDF
9512	1	115V	1	Yes	PVDF, Carbon, Hastelloy C, Alphasyn EPDM, Ceramic	47" (1200 mm)	6 ft. (1.83 meters)	PVDF
9513	1	230V	1	Yes	PVDF, Carbon, Hastelloy C, Alphasyn EPDM, Ceramic	47" (1200 mm)	6 ft. (1.83 meters)	PVDF

Assembly

1. Remove the pump and motor from packaging.
2. Inspect all contents for damage.
3. Couple the motor to the pump tube by using the Hand Wheel. (See figure 3, page 5).

⚠ WARNING ***When using an SP-A1 or SP-A2 Series motor, Standard Pump recommends the use of a Filter Lubricator Regulator (FLR) in order to ensure a moisture free supply of air to the motor.***

General Operation Guide

1. Once the pump is fully assembled and all connections are securely fastened, insert the pump into the drum or tank.
2. Turn the motor switch to the "ON" position.
3. If your package contains a flow meter (Package numbers 9500-9503 or 9510-9513) please reference the factory operating instructions which are located in your carton.
4. After use, clean the pump and store vertically.

Disassembly / Cleaning Procedures

1. In order to clean a majority of the residue from the pump tube, immerse the pump into a 55 Gallon Drum of water. Allow the pump to circulate the water for 3 minutes.
2. For a more thorough cleaning remove the motor from the pump tube by loosening the hand wheel (see Figure 3).
3. Remove the pump foot. (see Figure 1)
4. While holding the drive shaft with pliers (Factory suggests Grip-Locks to avoid scarring shaft) remove the impeller (see Figure 4).
5. Remove the Pump Housing (see Figure 2).
6. Remove outer tube and inner tube from discharge housing by turning clockwise.
7. For Stainless steel models (i.e. SP-SS Series, 9410, 9411, 9412, 9413), remove connection flange from inner/outer tube assembly by turning clockwise.
8. Remove pump coupling (P/N: 1004) from drive shaft by turning counterclockwise. Pull drive shaft straight down removing it from the discharge housing or connection flange.

⚠ WARNING ***When replacing the drive shaft in the bearing unit (P/N1038) during reassembly, make sure the drive shaft is inserted through the spacer in between the bearings inside the bearing unit. Failure to do so could cause the bearing unit to prematurely fail.***

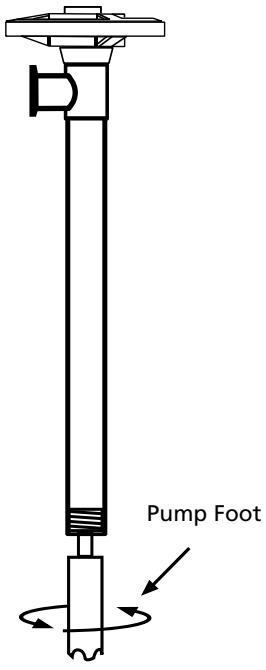


Figure 1

NOTE: Remove pump foot by turning clockwise.

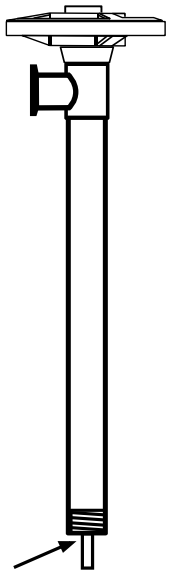


Figure 2

NOTE: Remove pump housing by turning clockwise.

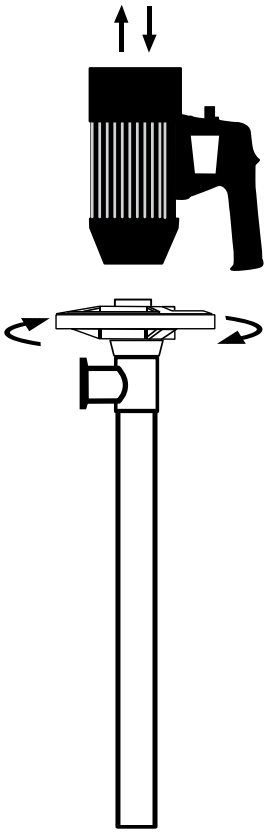


Figure 3

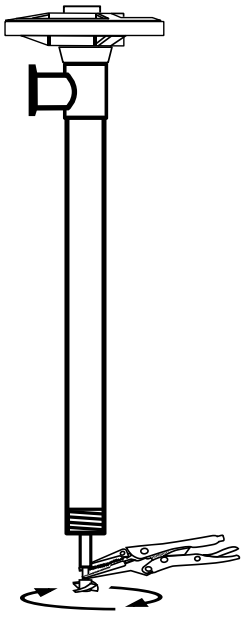


Figure 4

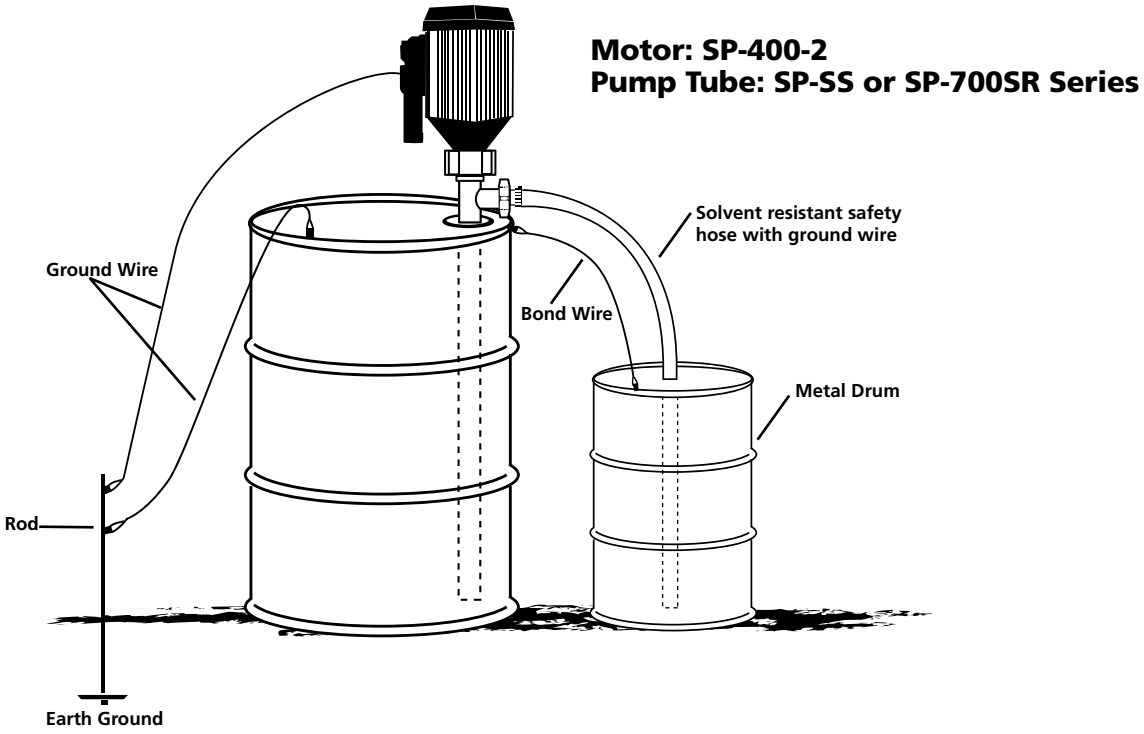
NOTE: Use grip lock pliers to hold shaft while removing impeller.

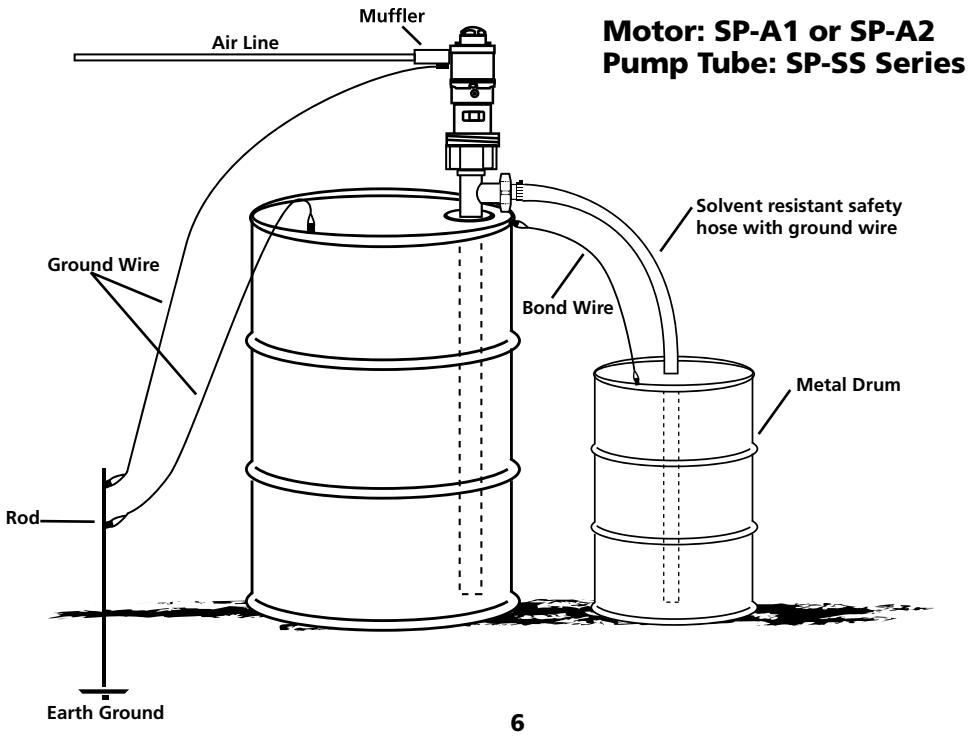
Grounding Procedures

⚠ WARNING TRANSFERRING OF FLAMMABLES OR USE IN HAZARDOUS DUTY

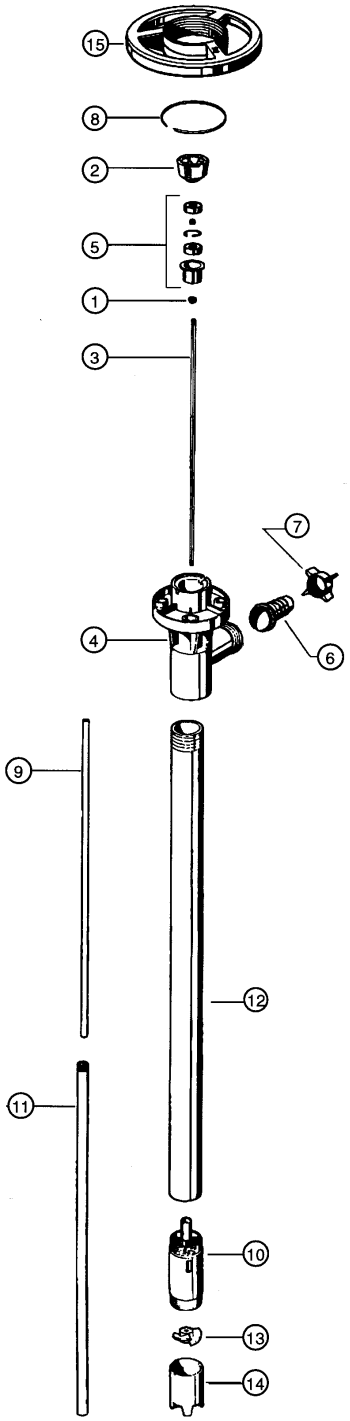
Bonding is an electrical connection between a primary metal vessel and a metal receiving vessel. See schematic.
Grounding is an electrical connection between a metal vessel, pump, motor and a constant ground; i.e. a metal rod driven into the earth.

Bonding and grounding are required when pumping flammable materials or in hazardous duty environments. Failure to bond and ground properly can cause a discharge of static electricity resulting in fire, injury or death. Follow NFPA 77 and 30 procedures at all times. If in doubt, do not start pump! Be sure bonding and grounding wires are secure before starting operation. (Ground and bond wires must have less than one ohm resistance for safe usage. Check continuity before starting.) Always check with a safety engineer when any question arises and periodically check safety procedures with a safety engineer





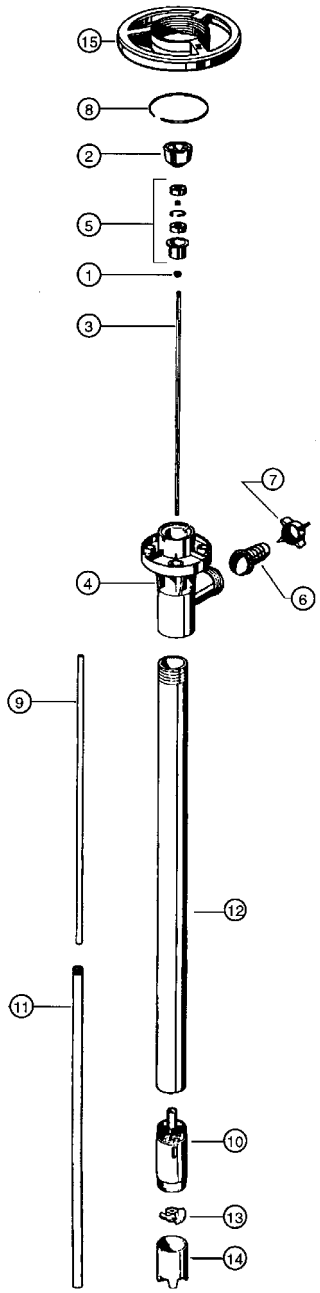
POLYPROPYLENE PUMP SERIES



ITEM NUMBER	DESCRIPTION		PART NUMBER
1	V-seal - Viton		**1000**
2	Pump coupling		**1004**
3	Drive shaft,	27" (700 mm)	**1543**
		39" (1000 mm)	**1544**
		47" (1200 mm)	**1545**
		50" (1270mm)	**1549**
		60" (1500 mm)	**1546**
		72" (1800 mm)	**1547**
4	Discharge housing		**1028**
5	Bearing unit assembled - 2 each		**1038**
	Viton shielded bearings, spacer, snap ring, bearing can		
6	Hose barb,	3/4" (19 mm)	**1051**
		1" (25 mm)	**1082**
7	Wing nut		**1106**
8	Snap ring		**1508**
9	Guide sleeve - TFE		
	27" (700 mm)		**1516**
	39" (1000 mm), 47" (1200 mm), 50" (1270 mm)		**1514**
	60" (1500 mm), 72" (1800 mm)		**1661**
10	Pump housing includes carbon bushing		**1524**
11	Inner tube,	27" (700 mm)	**1600**
		39" (1000 mm)	**1601**
		47" (1200 mm)	**1602**
		50" (1270 mm)	**1623**
		60" (1500 mm)	**1615**
		72" (1800 mm)	**1616**
12	Outer tube,	27" (700 mm)	**1604**
		39" (1000 mm)	**1603**
		47" (1200 mm)	**1605**
		50" (1270 mm)	**1624**
		60" (1500 mm)	**1617**
		72" (1800 mm)	**1618**
13	Impeller		**1608**
	High pressure impeller		**4608 HH**
14	Pump foot		**1609**
	High pressure pump foot		**1609 HH**
15	Hand wheel		**1842**

⚠ ***Polypropylene pumps should not be used to pump flammables.***

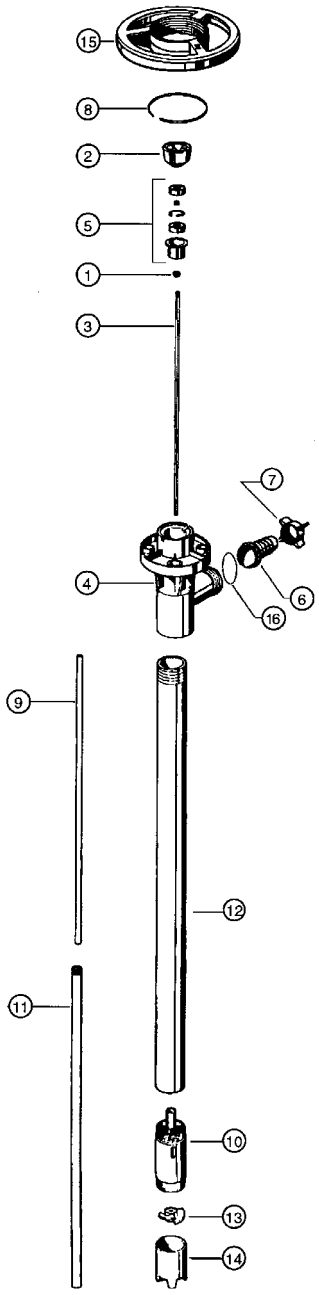
CPVC PUMP SERIES



ITEM NUMBER	DESCRIPTION	PART NUMBER
1	V-seal - TFE	**4000**
2	Pump coupling	**1004**
3	Drive shaft 27" (700 mm)	**1543**
	39" (1000 mm)	**1544**
	47" (1200 mm)	**1545**
	50" (1270mm)	**1549**
	60" (1500 mm)	**1546**
	72" (1800 mm)	**1547**
4	Discharge housing	**5028**
5	Bearing unit assembled - 2 each Viton shielded bearings, spacer, snap ring, bearing can	**1038**
6	Hose barb, 3/4" (19 mm)	**5051**
	1" (25 mm)	**5082**
7	Wing nut	**5106**
8	Snap ring	**1508**
9	Guide sleeve - TFE	
	27" (700 mm)	**1516**
	39" (1000 mm), 47" (1200 mm), 50" (1270 mm)	**1514**
	60" (1500 mm), 72" (1800 mm)	**1661**
10	Pump housing includes carbon bushing	**5524**
11	Inner tube, 27" (700 mm)	**5600**
	39" (1000 mm)	**5601**
	47" (1200 mm)	**5602**
	50" (1270mm)	**5623**
	60" (1500 mm)	**5615**
	72" (1800 mm)	**5616**
12	Outer tube, 27" (700 mm)	**5604**
	39" (1000 mm)	**5603**
	47" (1200 mm)	**5605**
	50" (1270mm)	**5624**
	60" (1500 mm)	**5617**
	72" (1800 mm)	**5618**
13	Impeller	**5608**
	High pressure impeller	**4608 HH**
14	Pump foot	**5609**
	High pressure pump foot	**5609 HH**
15	Hand wheel	**1842**

⚠ ***CPVC pumps should not be used to pump flammables.***

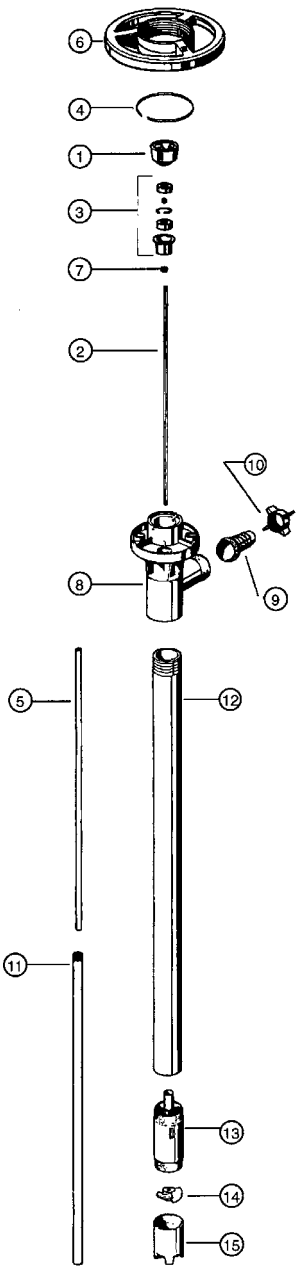
HIGH TEMPERATURE POLYPROPYLENE PUMP SERIES



ITEM NUMBER	DESCRIPTION		PART NUMBER
1	V-seal - TFE		**4000**
2	Pump coupling		**1004**
3	Drive shaft	27" (700 mm)	**1543**
		39" (1000 mm)	**1544**
		47" (1200 mm)	**1545**
		50" (1270mm)	**1549**
		60" (1500 mm)	**1546**
		72" (1800 mm)	**1547**
4	Discharge housing		**6028**
5	Bearing unit assembled - 2 each Viton shielded bearings, spacer, snap ring, bearing can		**1038**
6	Hose barb,	3/4" (19 mm)	**6051**
		1" (25 mm)	**6082**
7	Wing nut		**6106**
8	Snap ring		**1508**
9	Guide sleeve - TFE		
	27" (700 mm)		**1516**
	39" (1000 mm), 47" (1200 mm), 50" (1270 mm)		**1514**
	60" (1500 mm), 72" (1800 mm)		**1661**
10	Pump housing includes carbon bushing		**6524**
11	Inner tube,	27" (700 mm)	**6600**
		39" (1000 mm)	**6601**
		47" (1200 mm)	**6602**
		50" (1270mm)	**6623**
		60" (1500 mm)	**6615**
		72" (1800 mm)	**6616**
12	Outer tube,	27" (700 mm)	**6604**
		39" (1000 mm)	**6603**
		47" (1200 mm)	**6605**
		50" (1270mm)	**6624**
		60" (1500 mm)	**6617**
		72" (1800 mm)	**6618**
13	Impeller		**6608**
	High pressure impeller		**4608 HH**
14	Pump foot		**6609**
	High pressure pump foot		**6609 HH**
15	Hand wheel		**1842**
16	O-Ring		**6695**

⚠ ***High Temperature Polypropylene pumps should not be used to pump flammables.***

PVDF PUMP SERIES



ITEM NUMBER	DESCRIPTION	PART NUMBER
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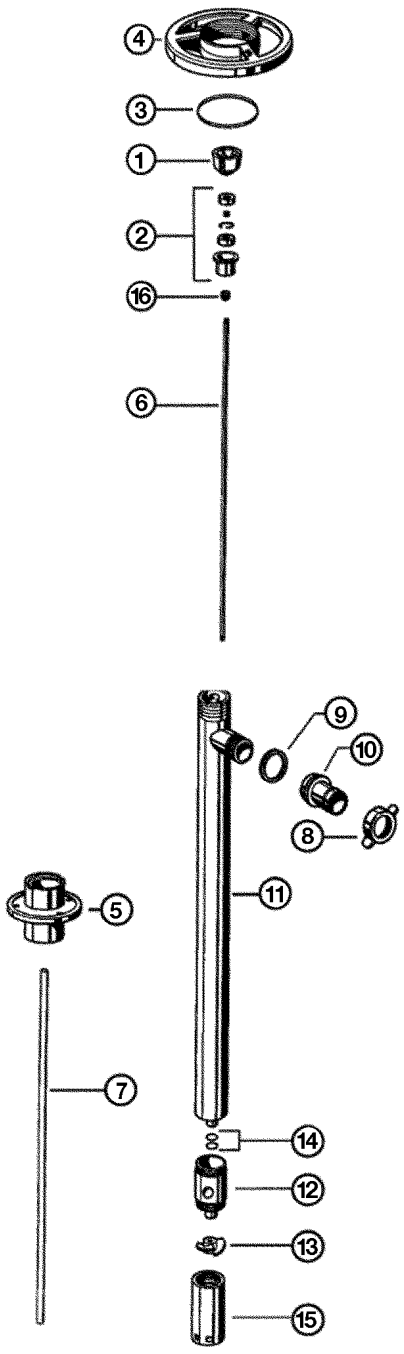
2	Drive shaft 27" (700 mm)	**1543**
	39" (1000 mm)	**1544**
	47" (1200 mm)	**1545**
	50" (1270mm)	**1549**
	60" (1500 mm)	**1546**
	72" (1800 mm)	**1547**
3	Bearing unit assembled - 2 each	
	Viton shielded bearings, spacer,	
	snap ring, bearing can	**1038**
4	Snap ring	**1508**
5	Guide sleeve - TFE	
	27" (700 mm)	**1516**
	39" (1000 mm), 47" (1200 mm), 50" (1270 mm)	**1514**
	60" (1500 mm), 72" (1800 mm)	**1661**
6	Hand wheel	**1842**
7	V-seal - TFE	**4000**
8	Discharge housing	**4028**
9	Hose barb, 3/4" (19 mm)	**4051**
	1" (25 mm)	**4082**
10	Wing nut	**4106**
11	Inner tube, 27" (700 mm)	**4600**
	39" (1000 mm)	**4601**
	47" (1200 mm)	**4602**
	50" (1270 mm)	**4623**
	60" (1500 mm)	**4615**
	72" (1800 mm)	**4618**
12	Outer tube, 27" (700 mm)	**4604**
	39" (1000 mm)	**4603**
	47" (1200 mm)	**4605**
	50" (1270 mm)	**4622**
	60" (1500 mm)	**4617**
	72" (1800 mm)	**4619**
13	Pump housing includes carbon bushing	**4607**
14	Impeller - PVDF	**4608**
	High pressure rotor	**4608HH**
15	Pump foot	**4609**
	High pressure pump foot	**4609HH**

⚠ ***PVDF pumps should not be used to pump flammables.***

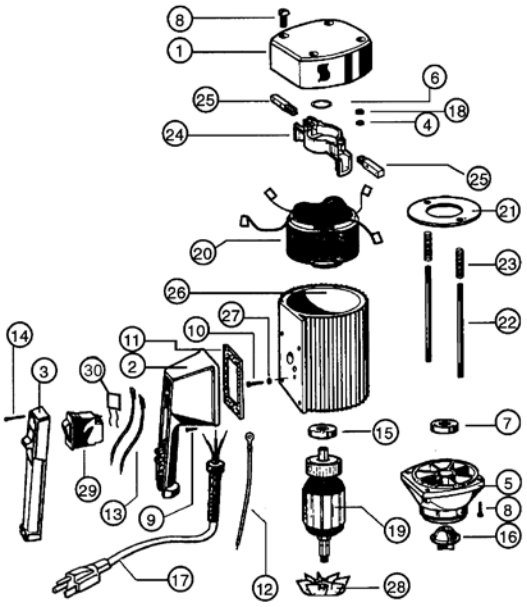
316 STAINLESS STEEL PUMP SERIES



ITEM NUMBER	DESCRIPTION	PART NUMBER
1	Pump coupling	**1004**
2	Bearing unit assembled – 2 each Viton shielded bearings, spacer, snap ring, bearing can	**1038**
3	Snap ring	**1508**
4	Hand wheel	**1842**
5	Connection flange	**8102**
6	Drive shaft 27" (700 mm)	**2027**
	39" (1000 mm)	**2028**
	47" (1200 mm)	**2029**
	60" (1500 mm)	**2709**
	72" (1800 mm)	**2710**
7	TFE guide sleeve	
	27" (700 mm)	**2031**
	39" (1000 mm) / 47" (1200 mm)	**2032**
	60" (1500 mm)	**2711**
	72" (1800 mm)	**2712**
8	Wing nut	**8068**
9	TFE seal	**2195**
10	Hose barb, 1" (25 mm)	**2196**
	Hose barb, .75" (19 mm)	**2197**
11	Inner/outer tube assembly	
	27" (700 mm)	**2700**
	39" (1000 mm)	**2701**
	47" (1200 mm)	**2702**
	60" (1500 mm)	**2713**
	72" (1800 mm)	**2714**
12	Pump housing with carbon bushing	**2704**
13	TFE impeller	**2706**
	High pressure impeller	**4608 HH**
14	O-ring, Viton, 2 per set	**2707**
15	Pump foot	**2708**
	High pressure pump foot	**2708 HH**
16	V-Seal – TFE	**4000**

⚠ ***When pumping flammables or combustible liquids, this pump must be used in conjunction with an explosion proof motor.***

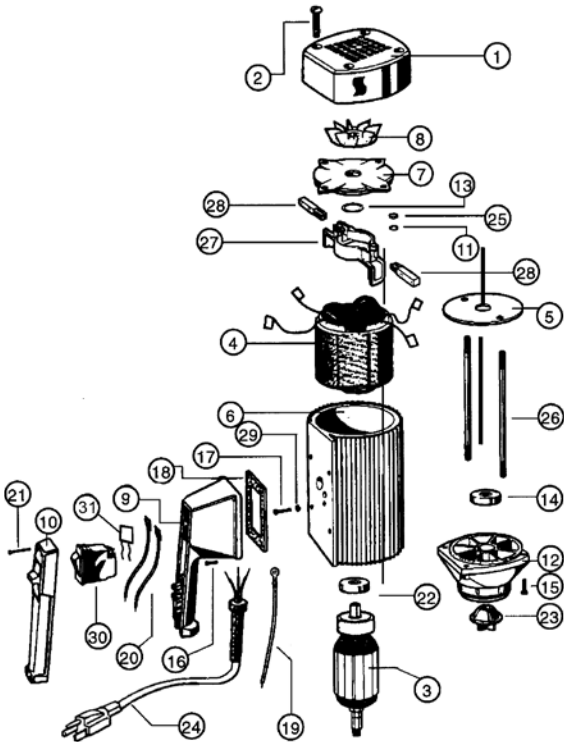
SP-280P SERIES MOTOR SPARE PARTS



ITEM NUMBER	DESCRIPTION	PART NUMBER
1	Motor cover	**8000**
2	Switch housing	**8001**
2A	Switch housing for variable speed, includes potentiometer	
	110-120V	**8004**
	220-240V	**8005**
2B	Switch housing for batch control, includes potentiometer and	
	BCS port connection 110-120V	**8006**
	220-240V	**8007**
3	Switch cover	**8002**
4	Lock washer	**8071**
5	Lower housing	**8100**
6	Wave washer	**8125**
7	Ball bearing	**8126**
8	Screw for plastic housing	**8130P**
9A	Screw for 110-120V	**8131**
9B	Screw for 220-240V	**8131LVR**
10	Ground screw	**8162**
11	Gasket	**8167**
	Low voltage release (for 220-240V)	**8167LVR**
12	Earthing Lead	**8183**
13	Lead	**8185**
14	Screw	**8220**
15	Ball bearing	**8331**
16	Motor coupling	**8333**
17	Power cord w/strain relief & plug	
	110-120V	**8360**
	220-240V	**8705**
18	Hexagon nut	**8448**
19	Armature 110-120V	**8502**
	220-240V	**8701**
20	Stator 110-120V	**8503**
	220-240V	**8702**
21	Guide disc	**8504**
22	Rod connector	**8506**
23	Pressure spring	**8507**
24	Brush holder	**8508**
25	Carbon brush 110-120V	**8509**
	220-240V	**8703**
26	Motor housing, plastic	**8510P**
27	Star washer	**8511**
28	Fan	**8512**
29	Overload switch,	
	8.5 amp 110-120V	**8611**
	5 amp 220-240V low voltage release	**8704LVR**
30	EMI Filter	**8003**
31	Repair kit 110-120V (includes PN's 8333 & (2) 8509)	**9055**
32	Repair kit 220-240V (includes PN's 8333 & (2) 8703)	**9056**

⚠ ***SP-280P open motor should not be used to pump flammables.***

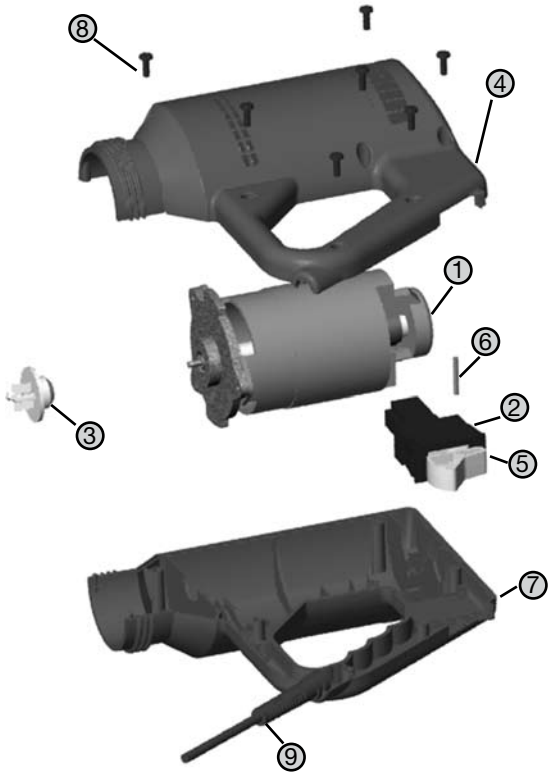
SP-ENC SERIES MOTOR SPARE PARTS



ITEM NUMBER	DESCRIPTION		PART NUMBER
1	Motor cover		**3000**
2	Screw		**3130**
3	Armature	110-120V	**3502**
		220-240V	**3701**
4	Stator	110-120V	**3503**
		220-240V	**3702**
5	Guide disc		**3504**
6	Motor housing		**3510**
7	Bearing cover		**3511**
8	Fan		**3512**
9	Switch housing		**8001**
9A	Switch housing for variable speed, includes potentiometer	110-120V	**8004**
		220-240V	**8005**
9B	Switch housing for batch control, includes potentiometer and BCS port connection	110-120V	**8006**
		220-240V	**8007**
10	Switch cover		**8002**
11	Lock washer		**8071**
12	Lower housing		**8100**
13	Wave washer		**8125**
14	Ball bearing		**8126**
15	Screw		**8130**
16A	Screw for 110-120V		**8131**
16B	Screw for 220-240V		**8131LVR**
17	Ground screw		**8162**
18	Gasket		**8167**
	Low voltage release (for 220-240V)		**8167LVR**
19	Earthing Lead		**8185**
20	Lead		**8183**
21	Screw		**8220**
22	Ball bearing		**8331**
23	Motor coupling		**8333**
24	Power cord w/strain relief & plug		
		110-120V	**8360**
		220-240V	**8705**
25	Hexagon nut		**8448**
26	Rod connector		**3703**
27	Brush holder		**8508**
28	Carbon brush	110-120V	**8509**
		220-240V	**8703**
29	Star washer		**8511**
30	Overload switch,		
	8.5 amp 110-120V		**8611**
	5 amp 220-240V low voltage release		**8704LVR**
31	EMI Filter		**8003**
32	Repair kit 110-120V (includes PN's 8333 & (2) 8509)		**9055**
33	Repair kit 220-240V (includes PN's 8333 & (2) 8703)		**9056**

⚠ ***SP-ENC open motor should not be used to pump flammables.***

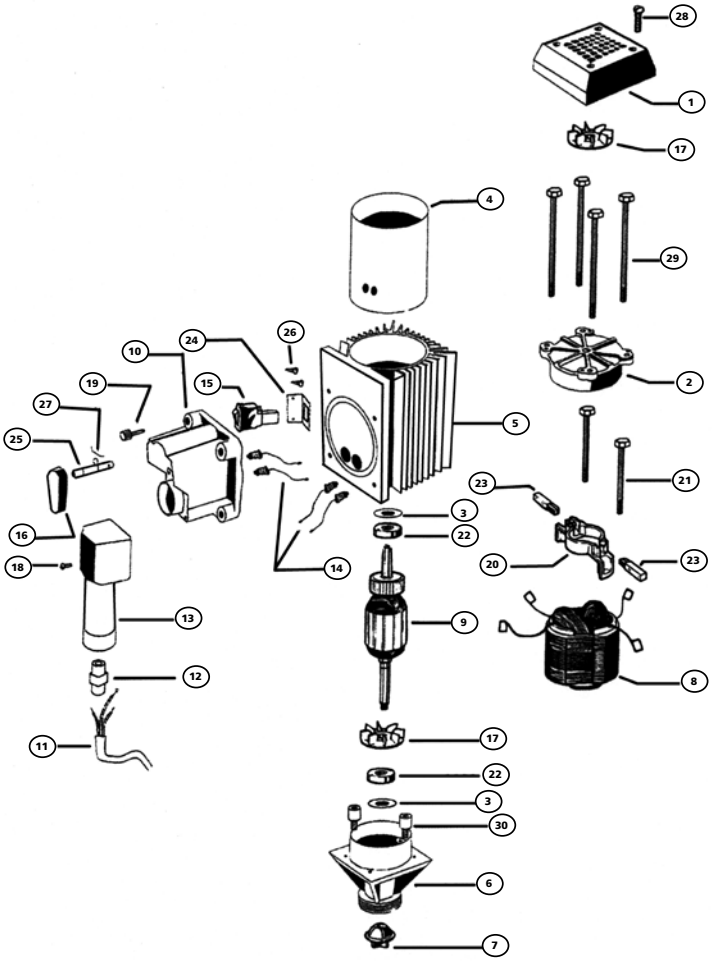
SP-ODP MOTOR SPARE PARTS



ITEM NUMBER	DESCRIPTION	PART NUMBER
1	Motor assembly 110-120V	**8900**
	Motor assembly 220-240V	**8900-2**
2	Overload switch	
	8.5 amp, 110-120V	**8611**
	5 amp, 220-240V	**8704 LVR**
3	Motor coupling	**8333**
4	Case left	**8902**
5	Actuator switch	**8903**
6	Rocker pin	**8904**
7	Case right	**8901**
8	Screw	**8905**
9	Power cord w/ strain relief & plug	
	110-120V	**8361**
	220-240V	**8706**

⚠ ***SP-ODP open motor should not be used to pump flammables.***

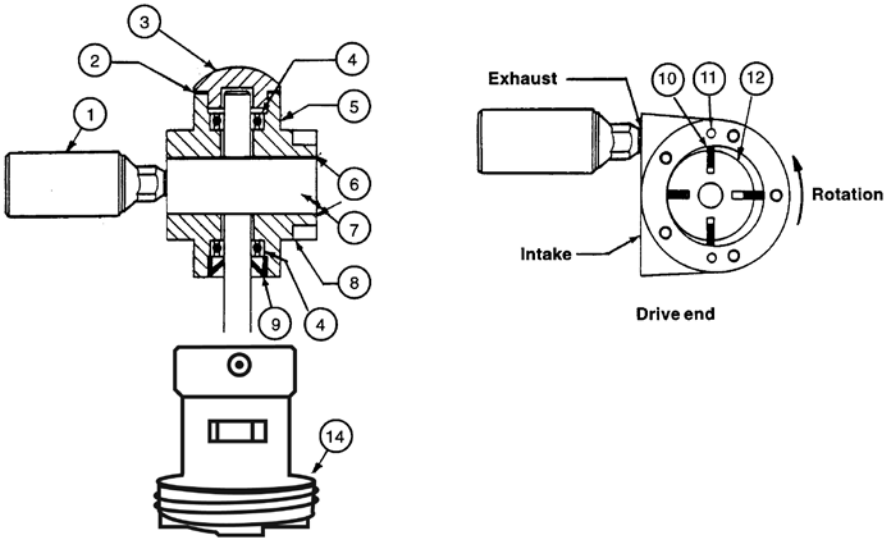
SP-400-2 SERIES EXPLOSION PROOF MOTOR SPARE PARTS



ITEM NUMBER	DESCRIPTION	PART NUMBER
1	Fan cover	**5013**
2	Bearing cover	**5004**
3	Wave washer (2 required)	**5050**
4	Glass sleeve	**5137**
5	Motor housing	**5007**
6	Lower housing	**5006**
7	Motor coupling	**8333**
8	Stator 220-240V	**5002**
9	Armature 220-240V	**5001**
10	Switch housing	**5008**
11	Cord without plug	**8705-EXP**
12	Strain relief	**5046-1**
13	Handle	**5005**
14	Pass through (4 required)	**5036**
15	Switch	**8704LVR**
16	On / Off knob	**5017**
17	Fan	**5020**
18	Switch handle screw (4 required)	**5045**
19	Switch housing screw (4 required)	**5044**
20	Brush holder	**8508**
21	Rod connector (2 required)	**5015-04**
22	Ball bearing (2 required)	**5053**
23	Carbon brush 220V (2 required)	**8703**
24	Switch bracket	**5011**
25	Switch actuator	**5009**
26	Switch bracket screw (2 required)	**5015-01**
27	Switch actuator pin	**5016**
28	Fan cover screw (4 required)	**5015-02**
29	Motor bolt (4 required)	**5018-01**
30	Insulator Screw (2 required)	**5138**

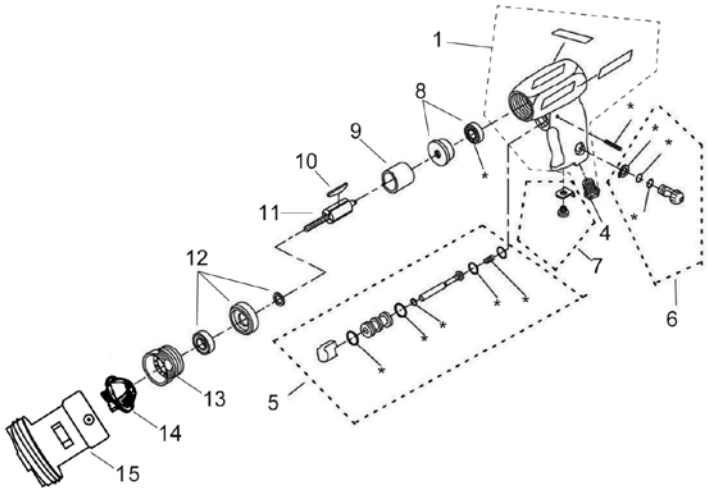
⚠ ***When pumping flammables or combustible liquids, this pump must be used in conjunction with a stainless steel pump tube.***

SP-A1 SERIES MOTOR SPARE PARTS



ITEM NUMBER	DESCRIPTION	PART NUMBER
1	Muffler	**SAF350**
2 *	Gasket	**SAC229**
3	Dead end cap	**SAC228A**
4 *	Bearing (2 required)	**SAG549**
5	Dead end plate	**SAC617**
6 *	Gasket (2 required)	**SAC527**
7	Body	**SAE899**
8	Drive end plate	**SAC616**
9 *	Shaft seal	**SAC190A**
10 *	Vane (4 required)	**SAE893**
11	Dowel pin (4 required)	**SD324A**
12	Impeller	**SAE896**
13	Repair kit*	**SK285**
	Includes item numbers 2, 4, 6, 9 and 10	
14	A1 adapter	**9007**

SP-A2 SERIES MOTOR SPARE PARTS



ITEM NUMBER	DESCRIPTION	PART NUMBER
1	Housing assembly	**317A-A40**
4	Inlet bushing (with Screen)	**317A-3B**
5	Trigger assembly	**317A-A93**
6	Regulator assembly	**317A-A249**
7	Muffler kit	**317A-AMK1**
8	Rear-end plate assembly	**317A-A12**
9	Cylinder	**317A-3**
10	Vanes (set of 4)	**317A-42-4**
11	Rotor	**317A-53**
12	Front-end plate, assembly	**317A-A11**
13	Motor lock-nut	**317A-27**
14	Motor coupling	**8333**
15	Adaptor	**9014**

SP-700SR & SP-700DD SERIES

Specifications

Models SP-700SR & SP-700DD

Maximum Liquid Temperature		Teflon & Viton Stator 300° F (149° C)
		Buna Stator 185° F (85° C)
Pump Type		Progressive Cavity (Positive Displacement)
Pump Speed		750-900 RPM
Max. Flow Rate	751 & 752	7 GPM (27 LPM)
	1851	12 GPM (45 LPM)
Max. Discharge Pressure	751 & 1851	87 psi (6 bar)
	752	174 psi (12 bar)
Immersion Length		27" (700 mm), 39" (1000 mm) & 47" (1200 mm) Add 6" (152 mm) to immersion length for 752 Series pumps.
Wetted Materials		SS 316, Teflon, Buna or Viton
Discharge Port		1.5" (38 mm) Hose Barb (Optional 1.25 (32 mm) Hose Barb)
Max. Viscosity	751 & 752	100,000 cps (mPAS)
	1851	10,000 cps (mPAS)
Max. Solid Size		.25" (6 mm)

Notes

1. Pump stator elastomer (Teflon, Buna & Viton) may vary performance.
2. Performance is based on using a 900 RPM motor. Reducing motor speed will decrease pump performance. Do not increase motor speed above 900 RPM.
3. The SP-700SR Series pump is equipped with a gear reduction unit which reduces the speed of the pump to between 750 and 900 RPM Therefore, the motor speed must not exceed 16,000 RPM's in order to achieve the proper operating RPM's of the pump.
4. Performance will vary depending on whether the product being pumped is newtonian (viscosity remains constant regardless of shear) or non-newtonian (viscosity does not remain constant with shearing).
5. Flow rates based on water. As viscosity increases, the flow rate will decrease.

⚠ WARNING ***The SP-700SR Series Pump is recommended for intermittent duty use only. (ie., 30 minute intervals with a 10 minute cooling off period). For continuous duty applications, Standard Pump recommends using the SP-700DD Series Pump.***

⚠ WARNING ***The SP-700SR and SP-700DD series pumps are positive displacement pumps and should never be operated against shut-off elements such as nozzles, valves, etc. Failure to comply may result in excessive pressure build resulting in serious injury and pump damage.***

⚠ WARNING ***The SP-700SR and SP-700DD series pumps should not be run dry. Running the pump dry will result in serious damage to the mechanical seal and pump stator.***

⚠ WARNING ***When using an SP-A4, SP-A6 or SP-A8 Series motor, Standard Pump recommends the use of a Filter Lubricator Regulator (FLR) in order to ensure a moisture free supply of air to the motor.***

Assembly

1. Remove the pump and motor from packaging.
2. Inspect all contents for damage.
3. For SP-700SR series models, couple the electric motor to the pump using the hex nut (see figure 1, page 20).
4. For SP-700DD series models, bolt electric or pneumatic motor to the pump using the hardware provided by the manufacturer (see figure 3, page 20).

⚠ WARNING ***Do not use these pumps for the transfer of flammable or combustible products or in an environment where flammable or combustible fumes are present unless used in conjunction with an Explosion Proof Motor. Please contact the factory or authorized distributor with any questions regarding this matter.***

Operation – SP-700SR Series

⚠ WARNING ***Do not operate the SP-700SR-1851 series pump on viscosities greater than 10,000 cps (mPAS). Do not operate the SP-700SR-751 or SP-700SR-752 series pumps on viscosities greater than 25,000 cps (mPAS). Failure to comply will result in premature pump failure.***

1. Once the pump is fully assembled and all connections are fastened, insert the pump into the drum or tank.
2. First pump clean water in order to familiarize yourself with the pump's operation, flow rate, discharge pressure and motor speed.
3. It is recommended to attach a suitable hose or pipe to the pump discharge.

⚠ WARNING ***Make sure the hose meets the pump discharge pressure requirements (SP-700-751 or SP-700-1851= 87 psi (6 bar)) / (SP-700-752= 174 psi (12,1 bar). It is recommended to use a hose that is rated 4 x the pump discharge pressure. Ex: 87 x 4= 348 psi (24,3 bar).***

4. If you opt to use a hose, fasten the hose to the hose barb with a suitable hose clamp that's capabilities exceed the pumps discharge pressure.

5. Make sure the speed control knob on the motor is turned to the MIN position (completely counterclockwise)
6. Turn the motor switch to the ON position.
7. Slowly throttle the motor up by turning the speed control knob clockwise.

⚠ WARNING ***Do not use these pumps for the transfer of flammable or combustible products or in an environment where flammable or combustible fumes are present unless used in conjunction with an Explosion Proof Motor. Please contact the factory or authorized distributor with any questions regarding this matter.***

Operation – SP-700DD Series

⚠ WARNING ***Do not operate the SP-700DD-1851 series pump on viscosities greater than 10,000 cps (mPAS). Do not operate the SP-700DD-751 or SP-700DD-752 series pumps on viscosities greater than 100,000 cps (mPAS). Failure to comply will result in premature pump failure.***

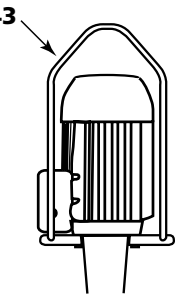
1. Make sure the motor is wired for the proper voltage. Use the wiring diagram on the motor nameplate.

⚠ WARNING ***Make sure motor and plug are wired to insure clockwise rotation. Use arrow on pump to verify proper direction. If the pump is wired to rotate counterclockwise, internal components will disassemble.***

⚠ WARNING ***When using an SP-700DD pump in conjunction with an air motor (SP-A4, SP-A6 or SP-A8), make sure the air line is connected to the air inlet port on the left side of the motor as you face the motor. This will insure that the motor turns in a clockwise direction. Use the pump arrow to verify proper direction. If the pump rotates counterclockwise, the internal components will disassemble.***

2. Once the pump is fully assembled and all connections are fastened, insert the pump into the drum or tank. Pump can be suspended from hoisting system using a pump hanger (P/N: 743).
3. It is recommended to attach a suitable hose or pipe to the pump discharge.
4. If you opt to use a hose, fasten the hose to the hose barb with a suitable hose clamp that's capabilities exceed the pumps discharge pressure.

⚠ WARNING ***Make sure the hose meets the pump discharge pressure requirements (SP-700-751 or SP-700-1851=87 psi (6 bar)) / (SP-700-752=174 psi (12,1 bar)). It is recommended to use a hose that is rated 4 x the pump discharge pressure. Ex: 87 x 4= 348 psi (24,3 bar).***



Maintenance

DISASSEMBLY / CLEANING PROCEDURES (SP-700SR & SP-700DD)

1. Remove motor from pump tube. For models SP-700SR: loosen Hex Nut in clockwise rotation (see Figure 2, page 20). For models SP-700DD: loosen (4) bolts that attach the pump to the motor (see Figure 3, page 20).
2. Loosen set screw on side of Hex Nut (see Figure 4, page 20).
3. Place a screwdriver (or similarly shaped object) in the mechanical seal inspection port (see Figure 4, page 20).
4. Use a large wrench to loosen the Hex Nut while simultaneously holding the screwdriver in the seal inspection port (see Figure 4, page 20).
5. Once the Hex Nut is loosened, remove the outer tube from the drive shaft assembly (see Figure 5, page 20).
6. Remove the stator from the pump tube body by turning clockwise (see Figure 6, page 20).
7. Hold the drive shaft in a fixed position and loosen the rotor (counterclockwise) located at the bottom of the drive shaft (see Figure 7, page 20).
8. Insert a small screwdriver (or similar object) through the small hole on the shaft located inside the mechanical seal inspection port (see Figure 8, page 20).
9. While holding the small shaft still, loosen (counterclockwise) the pump drive shaft with large wrench. (see Figure 8, page 20).

MECHANICAL SEAL REPLACEMENT/ PUMP ASSEMBLY (SP-700SR & SP-700DD)

1. Follow steps 1-9 under the Disassembly / Cleaning Procedures from above.
2. The mechanical seal will be exposed in the lower portion of the mechanical seal bushing (see Figure 9, page 20).
3. Remove damaged seal and replace with a new mechanical seal. Use a suitable lubricant on the seals O-rings.
4. Reinstall mechanical seal bushing into bearing housing.
5. Thread drive shaft onto bearing housing shaft (see Figure 8, page 20).
6. Thread rotor onto drive shaft item (see Figure 7, page 20).
7. Thread stator can onto pump body (see Figure 6, page 20).
8. Apply a suitable Lubricant on rotor.
9. Once Bearing Housing, drive shaft, and rotor are securely threaded together, insert this assembly into the pump body (see Figure 5, page 20).
10. Tighten the Hex Nut on the pump body to the Bearing Housing. Use screwdriver (or similarly shaped object) in the mechanical seal inspection port (see Figure 4, page 20).
11. Use a large wrench to loosen the Hex Nut while simultaneously holding the screwdriver in the seal inspection port (see Figure 4, page 20).
12. Reattach motor and resume operation. (SP-700SR: see Figure 1, page 20); (SP-700DD: see Figure 3, page 20).

Maintenance (Continued)

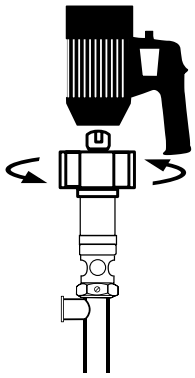


Figure 1 – Attach Motor by Turning Hex Nut Counterclockwise

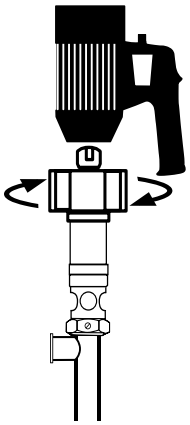


Figure 2 – Remove Motor by Turning Hex Nut Clockwise

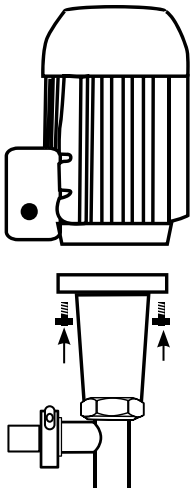


Figure 3

NOTE: Remove 4 bolts from motor housing.

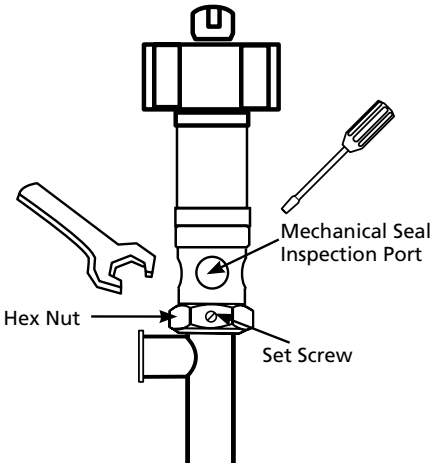


Figure 4

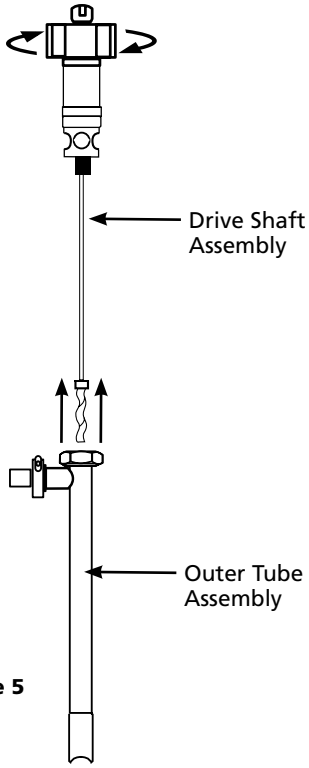


Figure 5

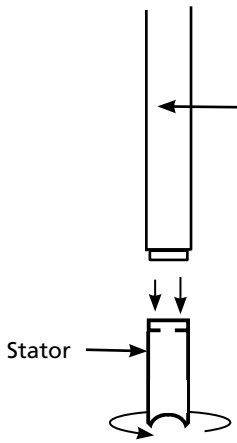


Figure 6

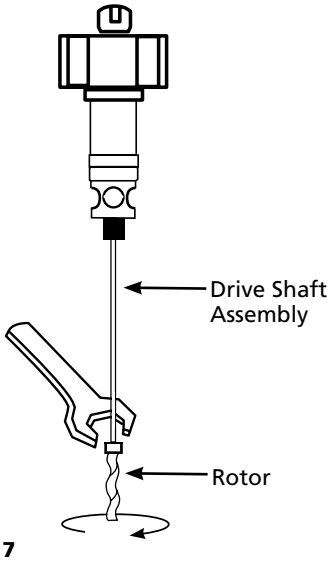


Figure 7

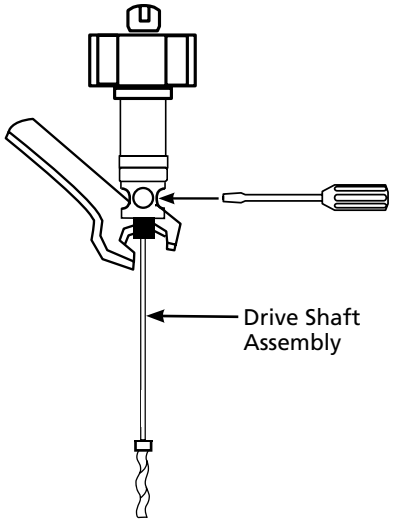


Figure 8

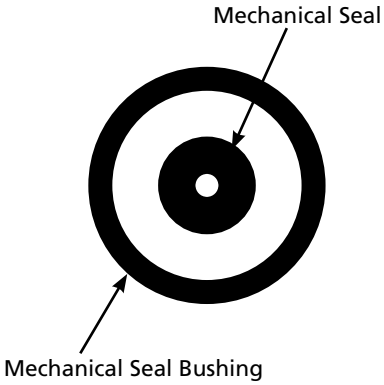
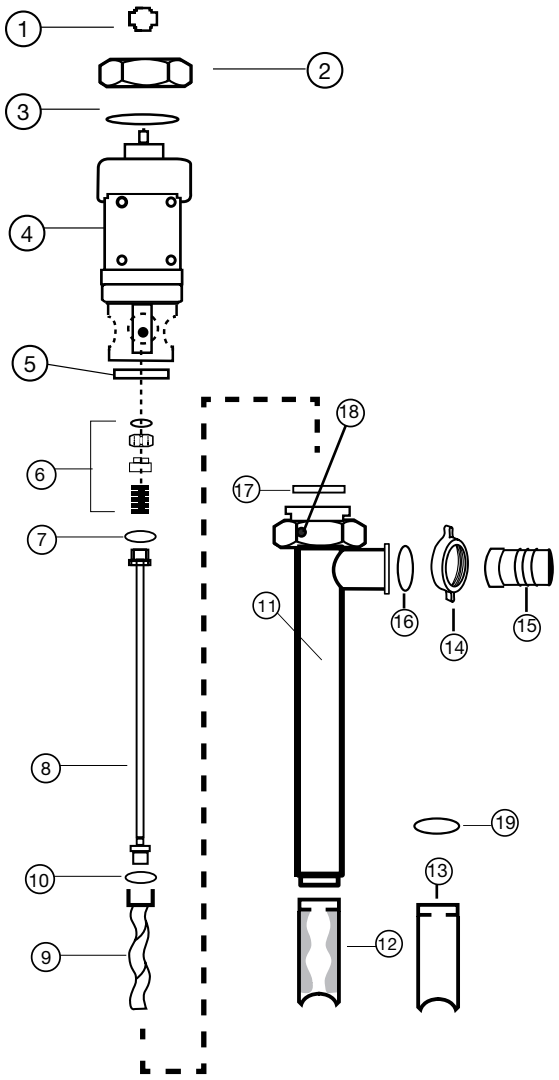


Figure 9

SP-700SR SERIES SPARE PARTS

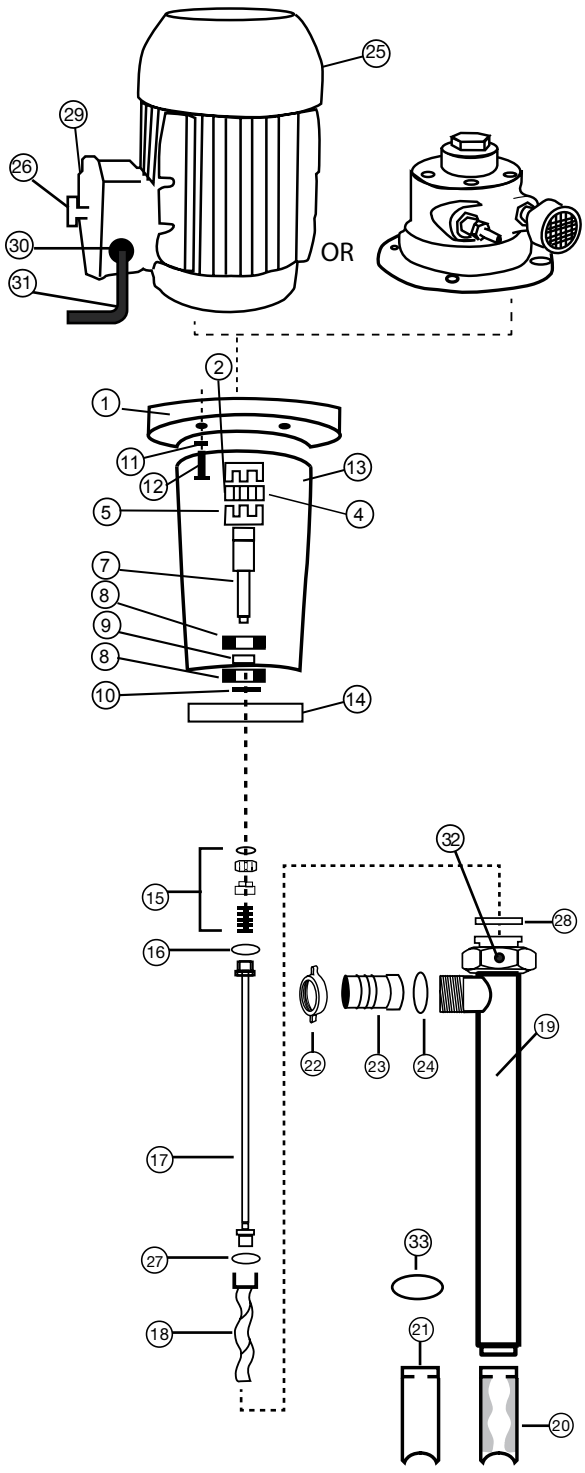


ITEM NUMBER	DESCRIPTION		PART NUMBER
1	Pump Coupling		**1004**
2	Hex Nut		**8842**
3	Snap Ring		**8208**
4	Gear Reduction Unit		**701**
5	Mechanical Seal Bushing		**702**
6	Mechanical Seal, SIC		**703**
7	Gasket PTFE		**735**
8	Drive Shaft, SS316		
	Pump Sizes - SP-751-27,SP-752-27,SP-1851-27		**704**
	Pump Sizes - SP-1851-39		**705**
	Pump Sizes - SP-751-39,SP-752-39,SP-1851-47		**706**
	Pump Sizes - SP-751-47,SP-752-47		**707**
9	Rotor		
		Size 751	**708**
		Size 752	**709**
		Size 1851	**710**
10	Gasket PTFE		**731**
11	Outer Tube Assembly		
	Pump Sizes - SP-751-27, SP-752-27, SP-1851-27		**770**
	Pump Sizes - SP-1851-39		**771**
	Pump Sizes - SP-751-39, SP-752-39, SP-1851-47		**772**
	Pump Sizes - SP-751-47, SP-752-47		**773**
12	Stator - BUNA*		
		Size 751	**713**
		Size 752	**714**
		Size 1851	**715**
	Stator - VITON*		
		Size 751	**719**
		Size 752	**720**
		Size 1851	**721**
	Stator - PTFE (stator insert only)		
		Size 751	**722**
		Size 752	**723**
		Size 1851	**724**
13	Stator Tube**	Size 751	**774**
		Size 752	**775**
		Size 1851	**776**
14	Wing Nut		**727**
15	Hose Barb	1.25 (32 mm)	**728**
		1.5 (38 mm)	**729**
16	O-Ring - PTFE		**730**
	VITON		**730V**
	BUNA		**730B**
17	Gasket - BUNA		**737**
	PTFE		**738**
	VITON		**739**
18	Set Screw		**757**
19	SS Ring		**0016**

*Includes Stator & Stator Tube. ** Does not include Stator #12 (TFE stator only).

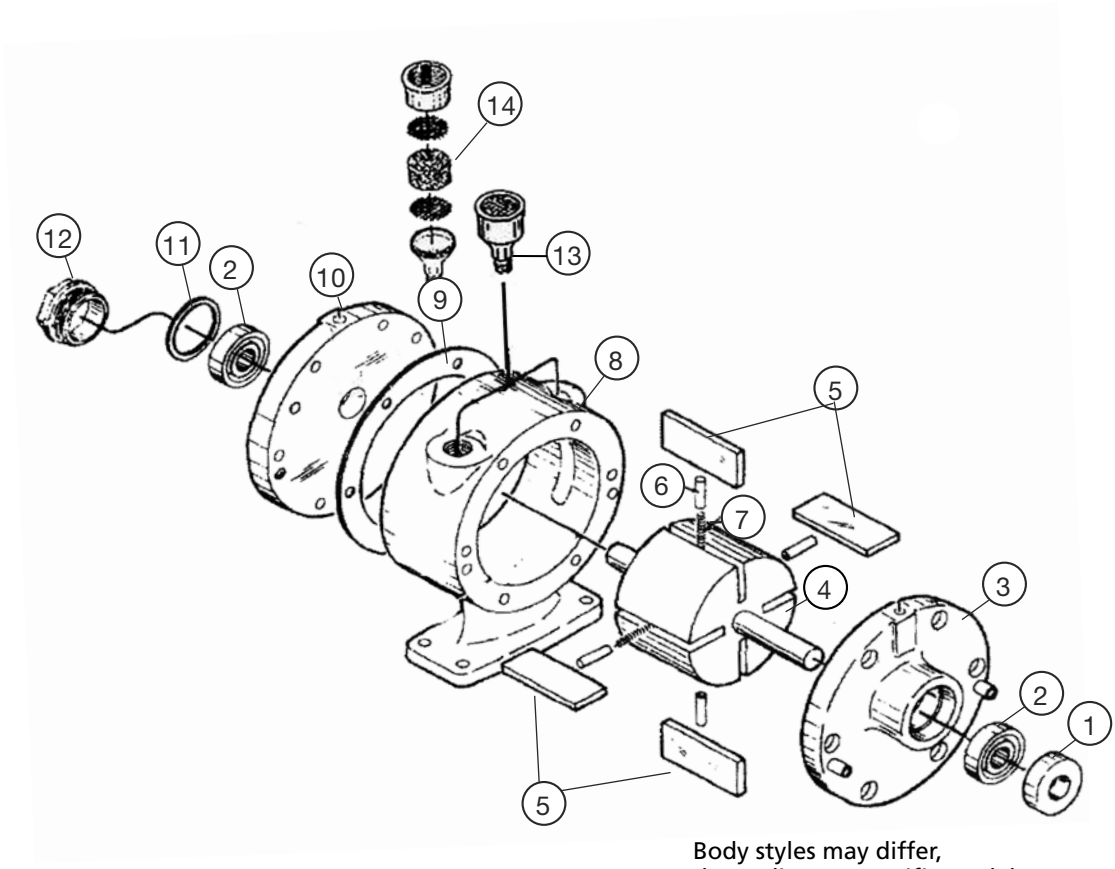
SP-700DD SERIES SPARE PARTS

ITEM #	DESCRIPTION		PART#
1	Flange Sizes		
	SP-500 model		**761**
	SP-510 & SP-520 models (requires (2) flanges)		**760**
	SP-A4 model		**760**
	SP-A6 & SP-A8 models		**762**
2	Motor Coupling		
	SP-500 & SP-A8 models- 24mm		**740**
	SP-4 model - 14mm		**744**
	SP-A6 model - 19 mm		**747**
	SP-510 & SP-520 models - 28mm		**746**
3	Coupling Key -- (not shown)		
	SP-A4 model - 5 mm X 20 mm		**840**
	SP-A6 model - 6 mm X 20 mm		**841**
	SP-A8 model - 8 mm X 20 mm		**842**
	SP-500, SP-510 & SP-520 models - 8 mm X 30 mm		**844**
4	Coupling Insert		**745**
5	Pump Coupling- 24mm		**740**
6	Key- Pump Coupling-8 mm X 25 (not shown)		**844**
7	Bearing Shaft		**750**
8	Bearing		**751**
9	Bearing Spacer		**752**
10	Bearing Clip		**753**
11	Washer (4 required)		**755**
12	Bolt (4 required)		**756**
13	Bearing Housing, Aluminum		**754**
14	Mechanical Seal Bushing		**702**
15	Mechanical Seal, SIC		**703**
16	Gasket PTFE		**735**
17	Drive Shaft		
	Pump Sizes - SP-751-27,SP-752-27,SP-1851-27		**704**
	Pump Sizes - SP-1851-39		**705**
	Pump Sizes - SP-751-39,SP-752-39,SP-1851-47		**706**
	Pump Sizes - SP-751-47,SP-752-47		**707**
18	Rotor	Size 751	**708**
		Size 752	**709**
		Size 1851	**710**
19	Outer Tube Assembly		
	Pump Sizes - SP-751-27,SP-752-27,SP-1851-27		**770**
	Pump Sizes - SP-1851-39		**771**
	Pump Sizes - SP-751-39,SP-752-39,SP-1851-47		**772**
	Pump Sizes - SP-751-47,SP-752-47		**773**
20	Stator		
	BUNA*	Size 751	**713**
		Size 752	**714**
		Size 1851	**715**
	VITON*	Size 751	**719**
		Size 752	**720**
		Size 1851	**721**
	PTFE	Size 751 (stator insert only)	**722**
		Size 752	**723**
		Size 1851	**724**
21	Stator Tube**	Size 751	**774**
		Size 752	**775**
		Size 1851	**776**
22	Wing Nut		**727**
23	Hose Barb	1.25 (32 mm)	**728**
		1.50 (38 mm)	**729**
24	O-Ring	PTFE	**730**
		BUNA	**730B**
		VITON	**730V**
25	Motor		
26	DD Series Motor Switch		**570**
27	Gasket	PTFE	**731**
28	Gasket	BUNA	**737**
		PTFE	**738**
		VITON	**739**
29	Switch Cover		**571**
30	Strain Relief		**572**
31	Power Cord 16 ft (5m)		**8708**
32	Set Screw		**757**
33	SS Ring		**0016**



*Includes Stator & Stator Tube. ** Does not include Stator #20 (TFE stator only).

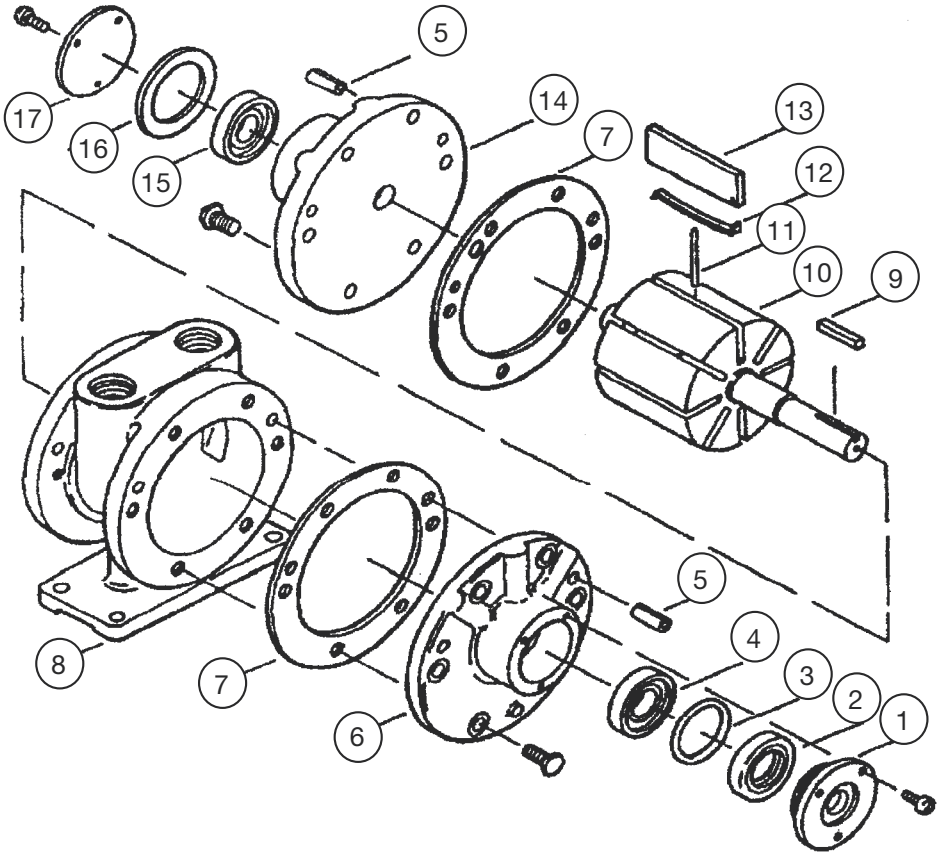
SP-A4 SERIES SPARE PARTS



Body styles may differ, depending on specific models.

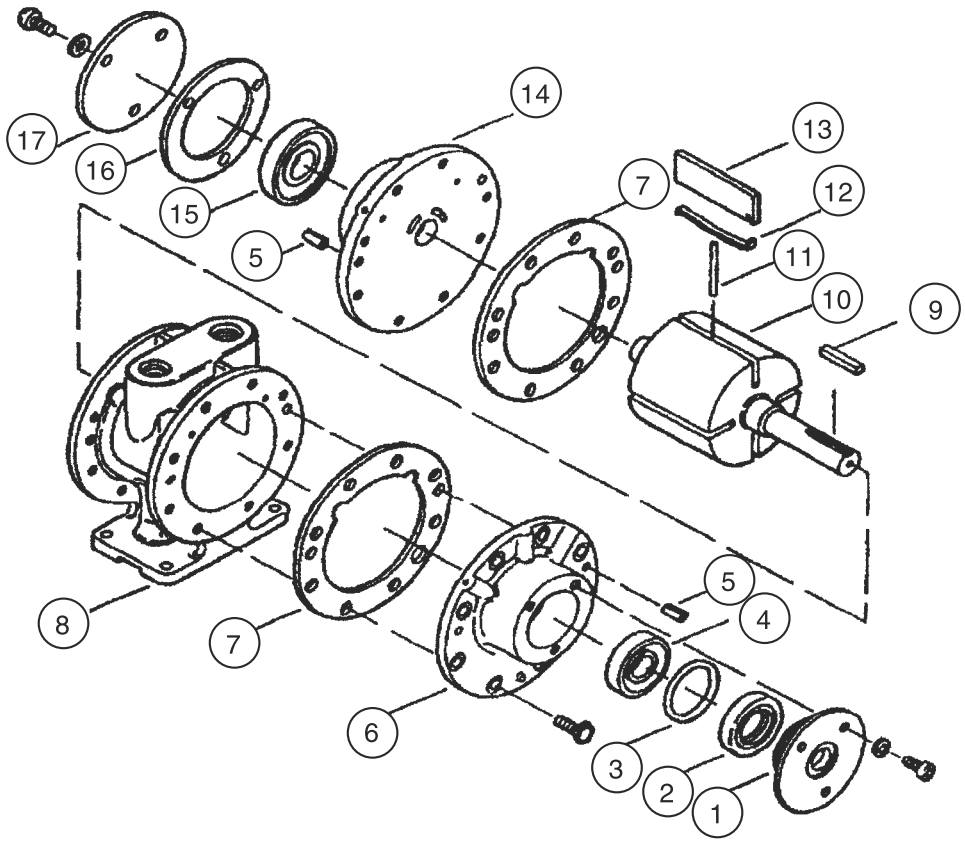
ITEM NUMBER	DESCRIPTION	QUANTITY	PART NUMBER
Service kit – only service kits are available for parts replacement * Denotes parts included in the Service Kit		1	**K206C**
1*	Shaft seal	1	**B2328**
2*	Bearing, dead end	1	**AB519**
	drive	1	**AA299J**
3	End plate, drive	1	**AK425A**
4	Rotor assembly	1	**AM455C**
5*	Vane	4	
6*	Push pin	4	
7*	Vane, spring	2	
8	Body	1	**AM410M**
9*	Shims	2	**B330**
10	End plate, dead	1	**AB622M**
11*	End cap, gasket	1	**AA46**
12	End cap, dead	1	**AM307D**
13	Muffler assembly	1	**AC980**
14*	Muffler felt	1	**AC983**

SP-A6 SERIES SPARE PARTS



ITEM NUMBER	DESCRIPTION	QUANTITY	PART NUMBER
Service kit – only service kits are available for parts replacement * Denotes parts included in the Service Kit		1	**K281A**
1	End cap, drive end	1	**AC998**
2*	Shaft seal	1	**AK423**
3*	'O'-ring	1	**AC989**
4*	Bearing, drive end	1	**AC894B**
5	Dowel pin	4	**AB162C**
6	End plate, drive	1	**AK424**
7*	Body gasket	2	**AD641**
8	Body	1	**AD665D**
9	Key	1	**AK422**
10	Rotor assembly	1	**AD648E**
11*	Push pin	2	**AD655A**
12*	Vane, spring	4	**AD692**
13*	Vane	4	**AD691**
14	End plate, dead	1	**AD651**
15*	Bearing, dead end	1	**AB519**
16*	End cap, gasket	1	**AD644**
17	End cap, dead end	1	**AD643**
	Muffler assembly	1	**AC990**
*	Felt	1	**AC993**

SP-A8 SERIES SPARE PARTS



ITEM NUMBER	DESCRIPTION	QUANTITY	PART NUMBER
Service kit – only service kits are available for parts replacement * Denotes parts included in the Service Kit		1	**K282A**
1	End cap, drive end	1	**AC988**
2*	Shaft seal	1	**AK420**
3*	'O'-ring	1	**AC989**
4*	Bearing, drive end	1	**AB927**
5	Dowel pin	4	**AB162**
6	End plate, drive	2	**AK421**
7*	Body gasket	2	**AC888**
8	Body	1	**AC878G**
9	Key	1	**AK668**
10	Rotor assembly	1	**AC986D**
11*	Push pin	2	**AC879**
12*	Vane, spring	4	**AC817**
13*	Vane	4	**AC816**
14	End plate, dead	1	**AC964**
15*	Bearing, dead end	1	**AC894B**
16*	End cap, gasket	1	**AC837**
17	End cap, dead end	1	**AC836**
	Muffler assembly	1	**AC990**
*	Felt	1	**AC993**

WARRANTY

Declarations

Declaration of Conformity	When this unit is used as a stand alone unit it complies with: Machinery Directive 98/37/EC EN60204, EN60335-2-41, EN60335-1, Low Voltage Directive 73/23/Eec EN61010-1, EMC Directive 89/336/Eec EN55014, EN 550104, EN50081-1, EN50082-1
Declaration of Incorporation	When this pump unit is to be installed into machine or is to be assembled with other machines for installations, it must not be put into service until the relevant machinery has been declared in conformity with Machine Directive 98/37/EC EN60204, EN60335-2-41, EN60335-1.

Responsible person: Donald M. Murphy, President, Standard Pump, Inc.
1540 University Drive, Auburn, Georgia 30011
Ph: 001-770-307-1003 Fax: 001-770-307-1009
e-mail: info@standardpump.com
www.standardpump.com

Three year limited warranty

Standard Pump, Inc. warrants, subject to the conditions below, through either Standard Pump, Inc., it's subsidiaries, or its authorized distributors, to repair or replace free of charge, including labor, any part of this equipment which fails within **three years** of delivery of the product to the end user. Such failure must have occurred because of defect in material or workmanship and not as a result of operation of the equipment other than in accordance with the instructions given in this material. Specific exceptions include:

- Consumable items such as motor brushes, bearings, couplings and impellers. (Motor brushes typically have a life span of approximately 700 hours. This will vary with the manner in which the motor is used)

Conditions of exceptions include:

- Equipment must be returned by prepaid carriage to Standard Pump, Inc., its subsidiary or authorized distributor.
- All repairs, modifications must have been made by or with express written permission by Standard Pump, Inc., it's subsidiary or authorized distributor.
- Equipment which have been abused, misused, or subject to malicious or accidental damage or electrical surge are excluded.

Warranties purporting to be on behalf of Standard Pump, Inc. made by any person, including representatives of Standard Pump, Inc, its subsidiaries, or its distributors, which do not fall within the terms of this warranty shall not be binding upon Standard Pump, Inc. unless expressly approved in writing by a Director or Manager of Standard Pump, Inc. Information for returning pumps Equipment which has been contaminated with, or exposed to, bodily fluids, toxic chemicals or any other substance hazardous to health must be decontaminated before it is returned to Standard Pump, Inc, or its distributor. A returned goods authorization number (RGA #) issued by Standard Pump, Inc., its subsidiary or authorized distributor, must be included with the returned equipment. The RGA # is required if the equipment has been used. If the equipment has been used, the fluids that have been in contact with the pump and the cleaning procedure must be specified along with a statement that the equipment has been decontaminated.